

Lesson 2

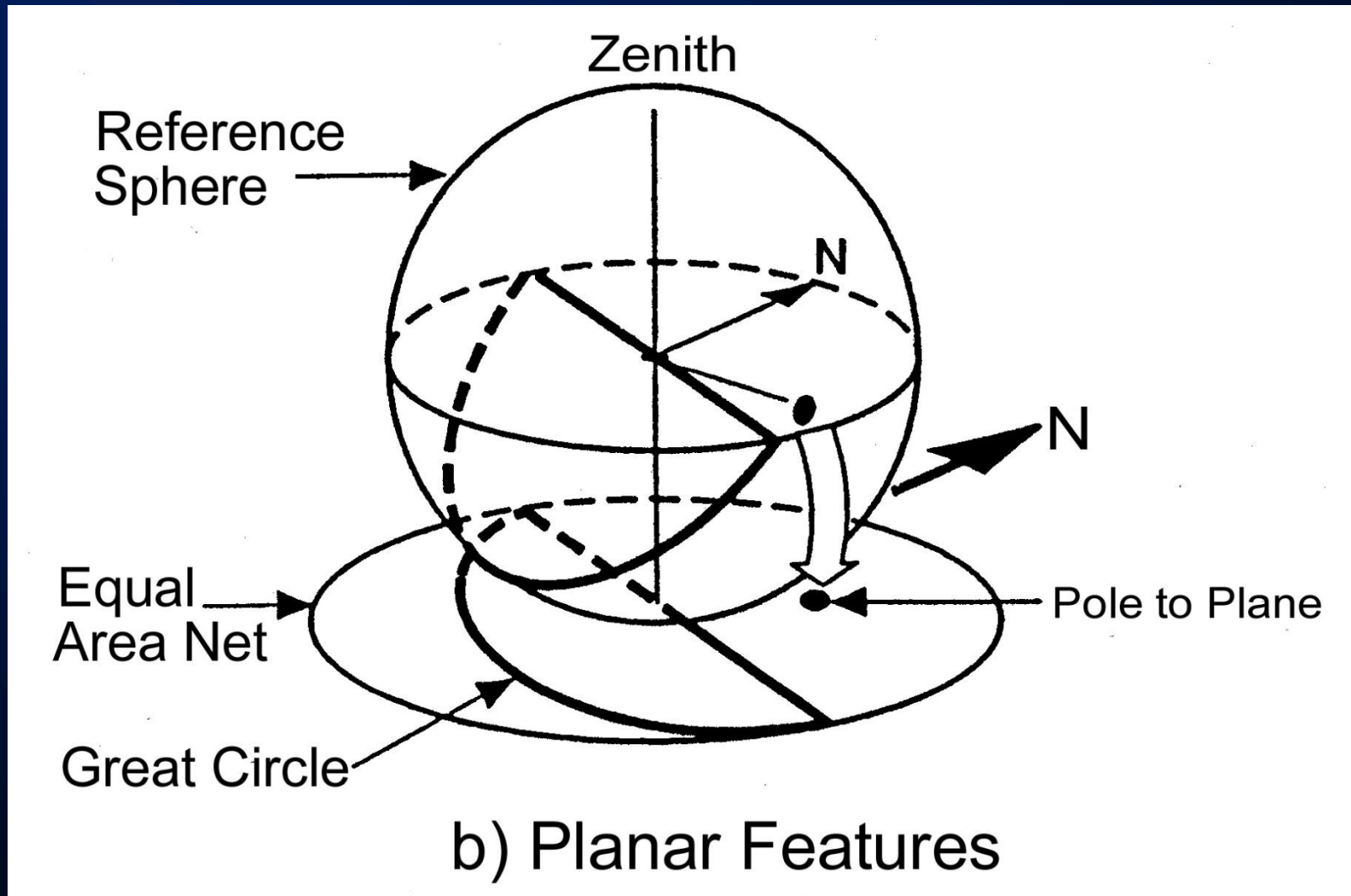
Part 2

STEREOGRAPHIC PLOTTING

Analysis of Structural Geology

- ***Stereographic Projection***
- ***Orientations Expressed as Dip/Direction***
- ***No Size or Location Data***

Projections of Linear/Planar Features

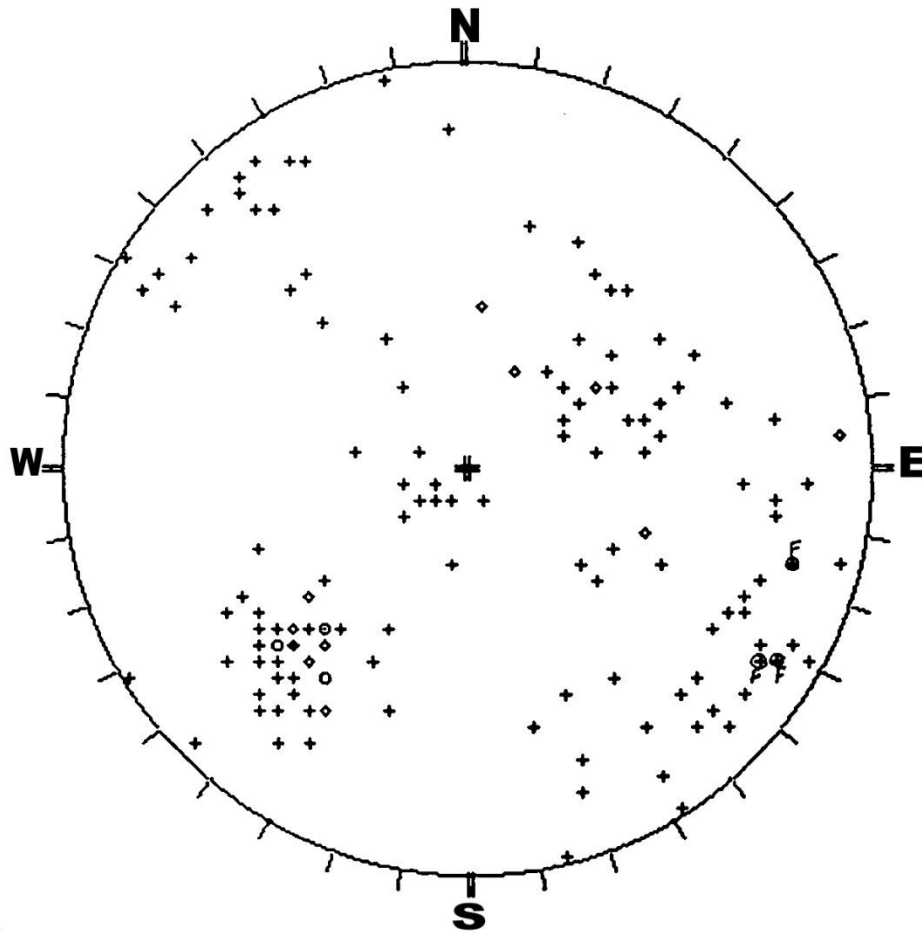


STUDENT EXERCISE 1A – STEREONET PLOTS

Objectives

- ***Plot stereonetts of dip and dip direction measurements***
- ***Analyze stereoplots to show intersection between planes***
- ***Demonstrate applications to stability analysis***

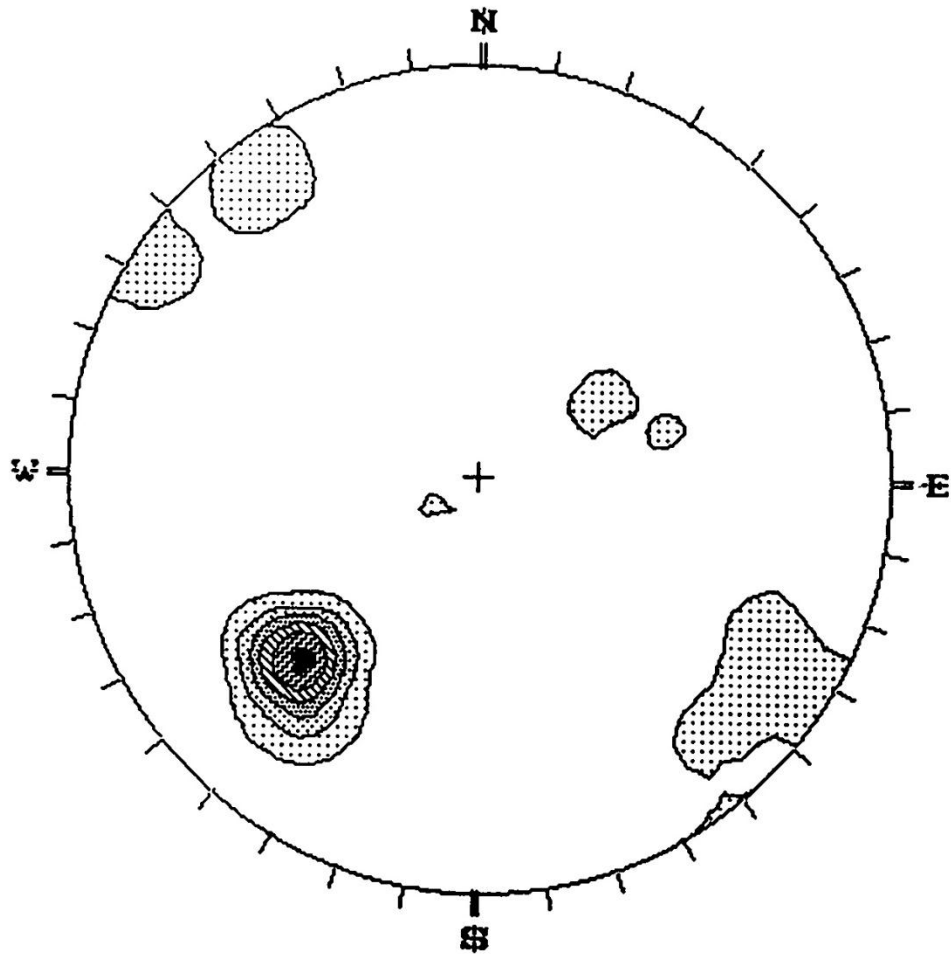
Stereographic Plot of Poles



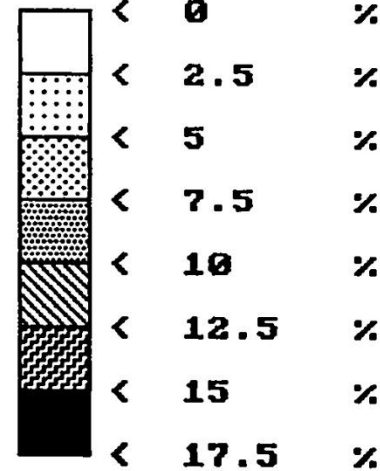
NUM. OF POLES

			EQUAL	ANGLE
+	1	pole	LWR.	HEMISPHERE
◇	2	poles	151	POLES
o	3	poles	151	ENTRIES
⊙	4	poles	F	Fault
◆	5	poles		

Stereographic Contour Plot of Poles



**FISHER POLE
CONCENTRATIONS**
% of total per
1.0 % area

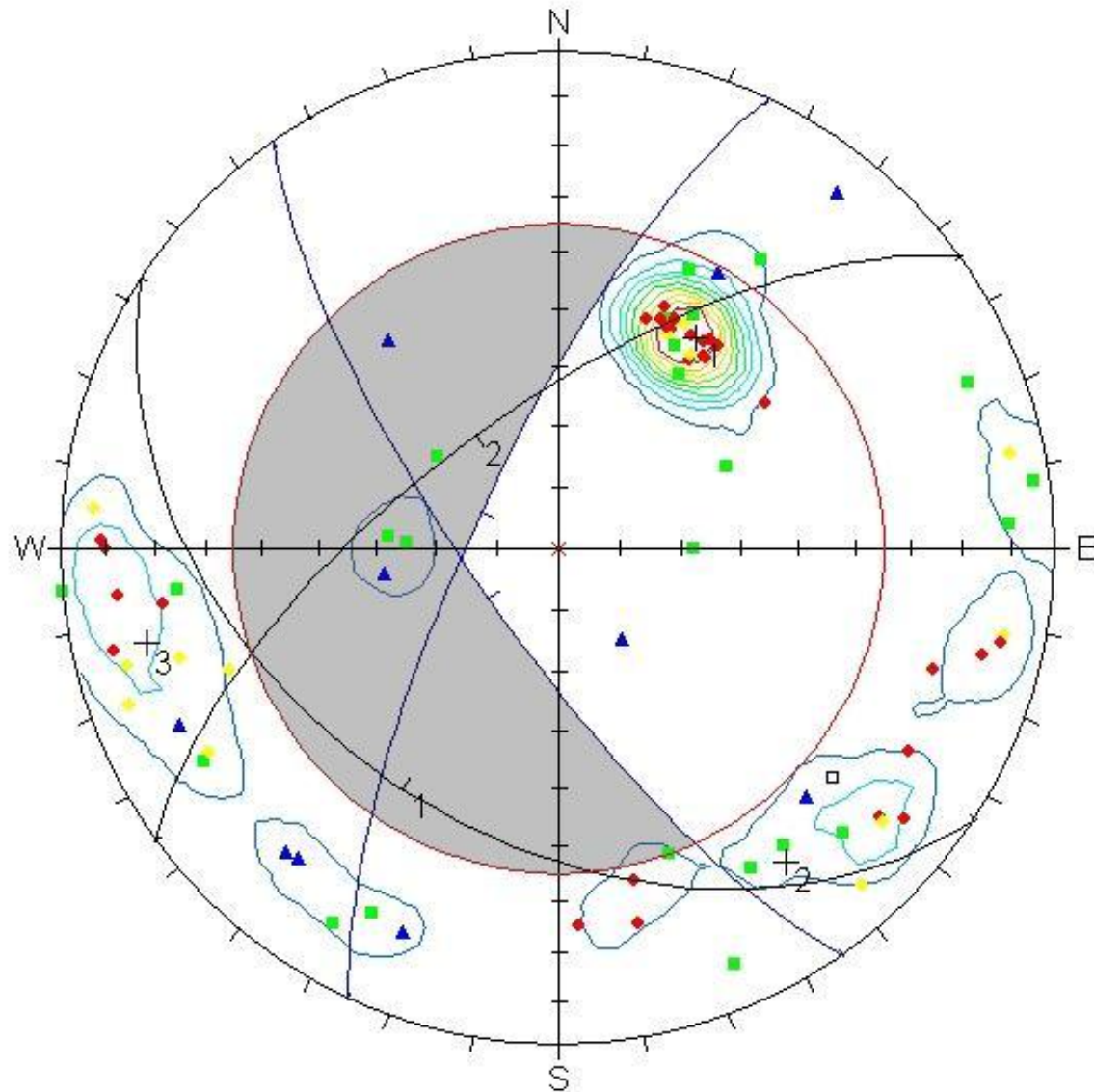


**EQUAL ANGLE
LWR. HEMISPHERE**

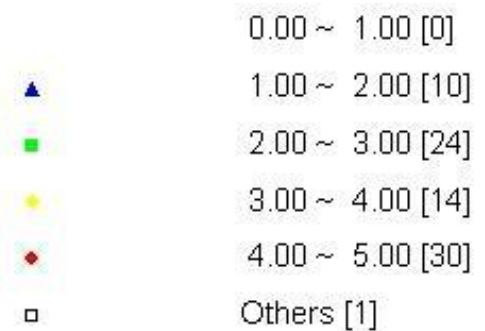
**151 POLES
151 ENTRIES**

**NO BIAS
CORRECTION**

Symbolic Pole Plot with Contour Overlay



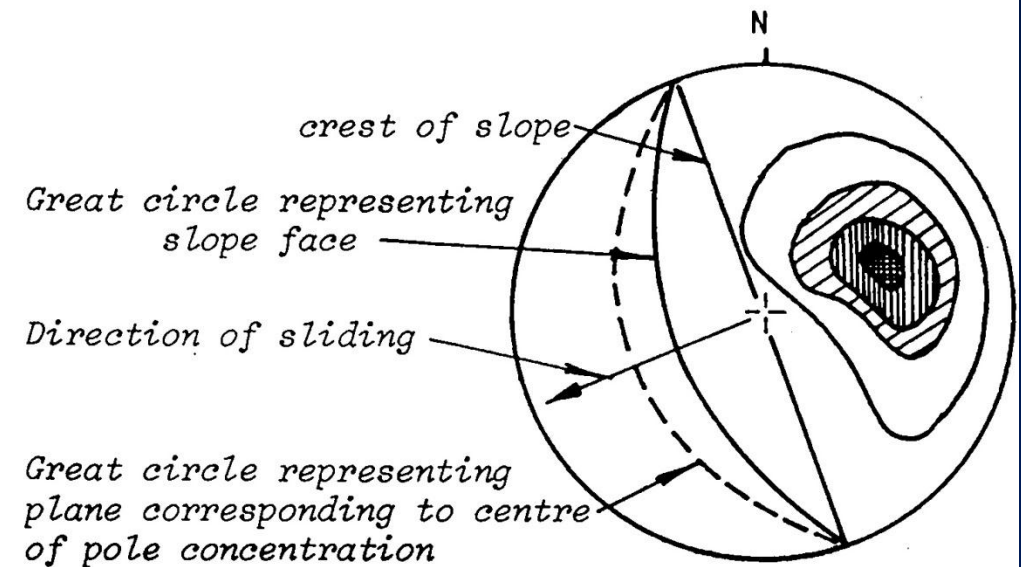
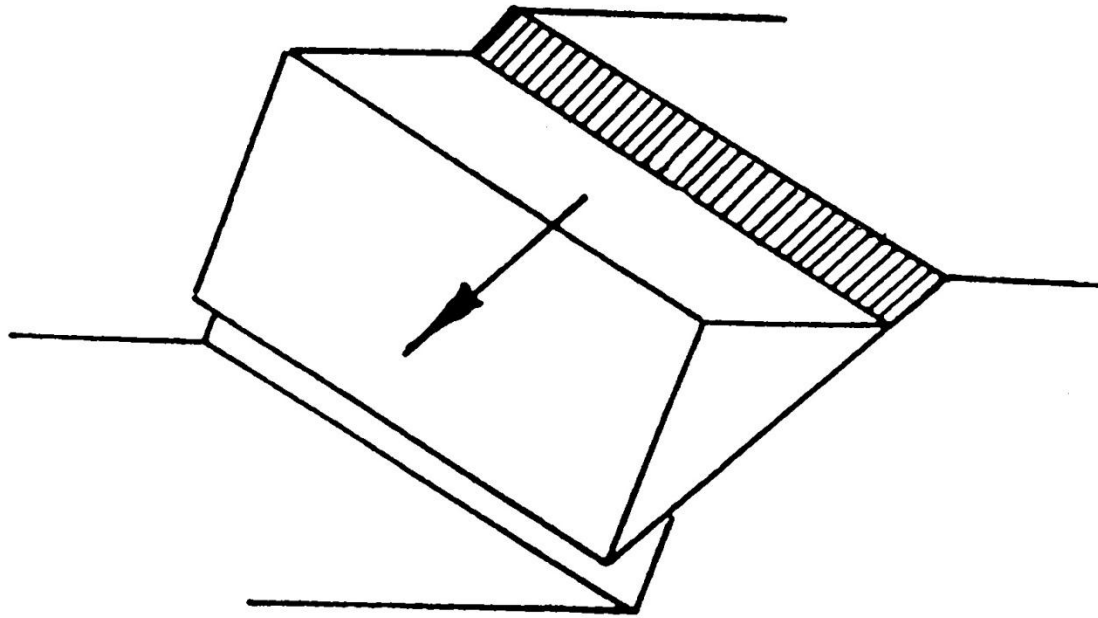
PERSISTENCE



Equal Area
Lower Hemisphere
79 Poles
79 Entries

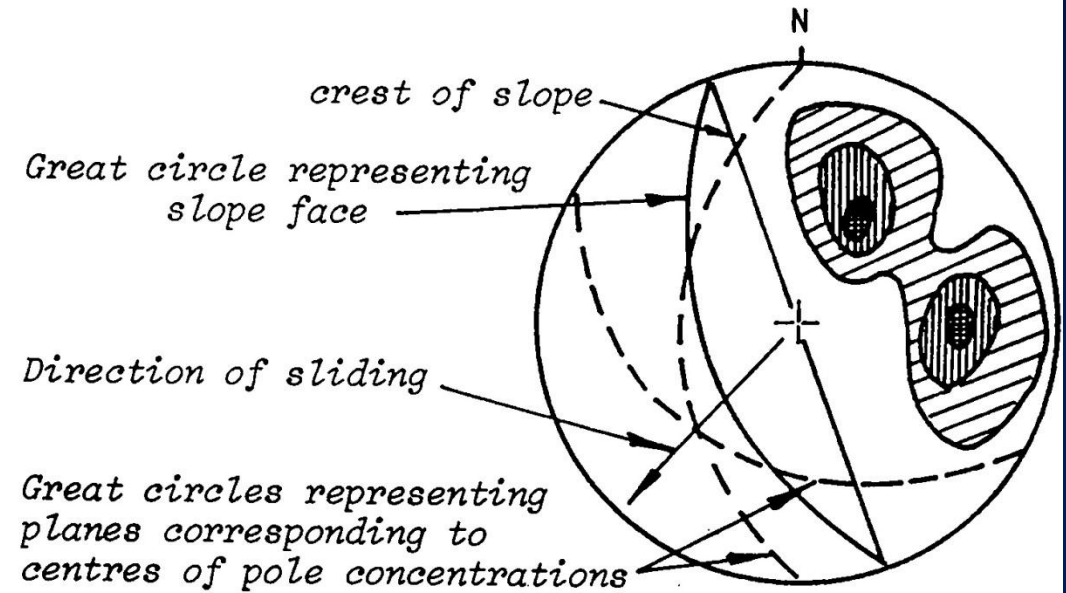
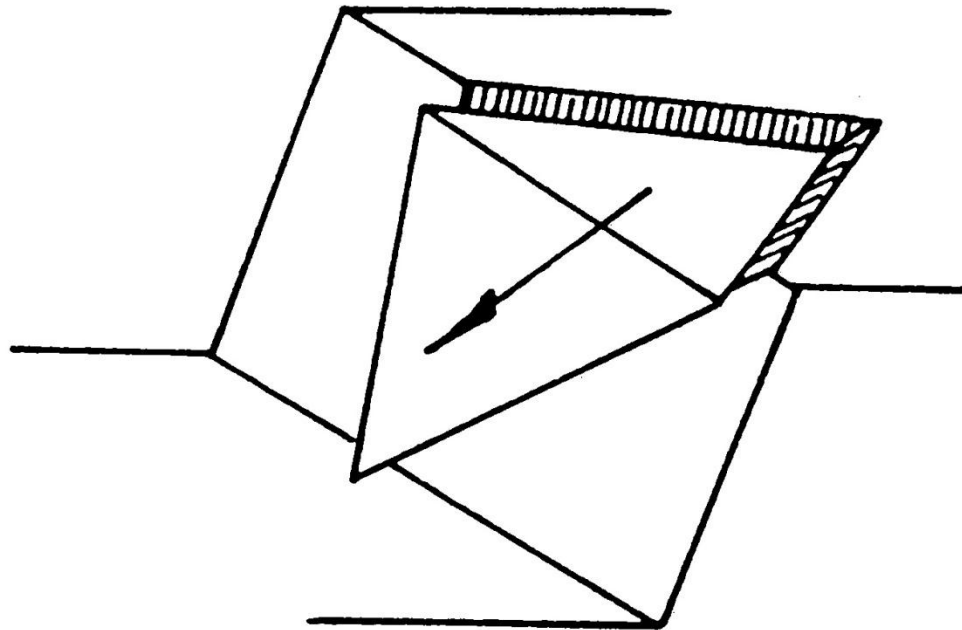


Stereoplot of Plane Failure



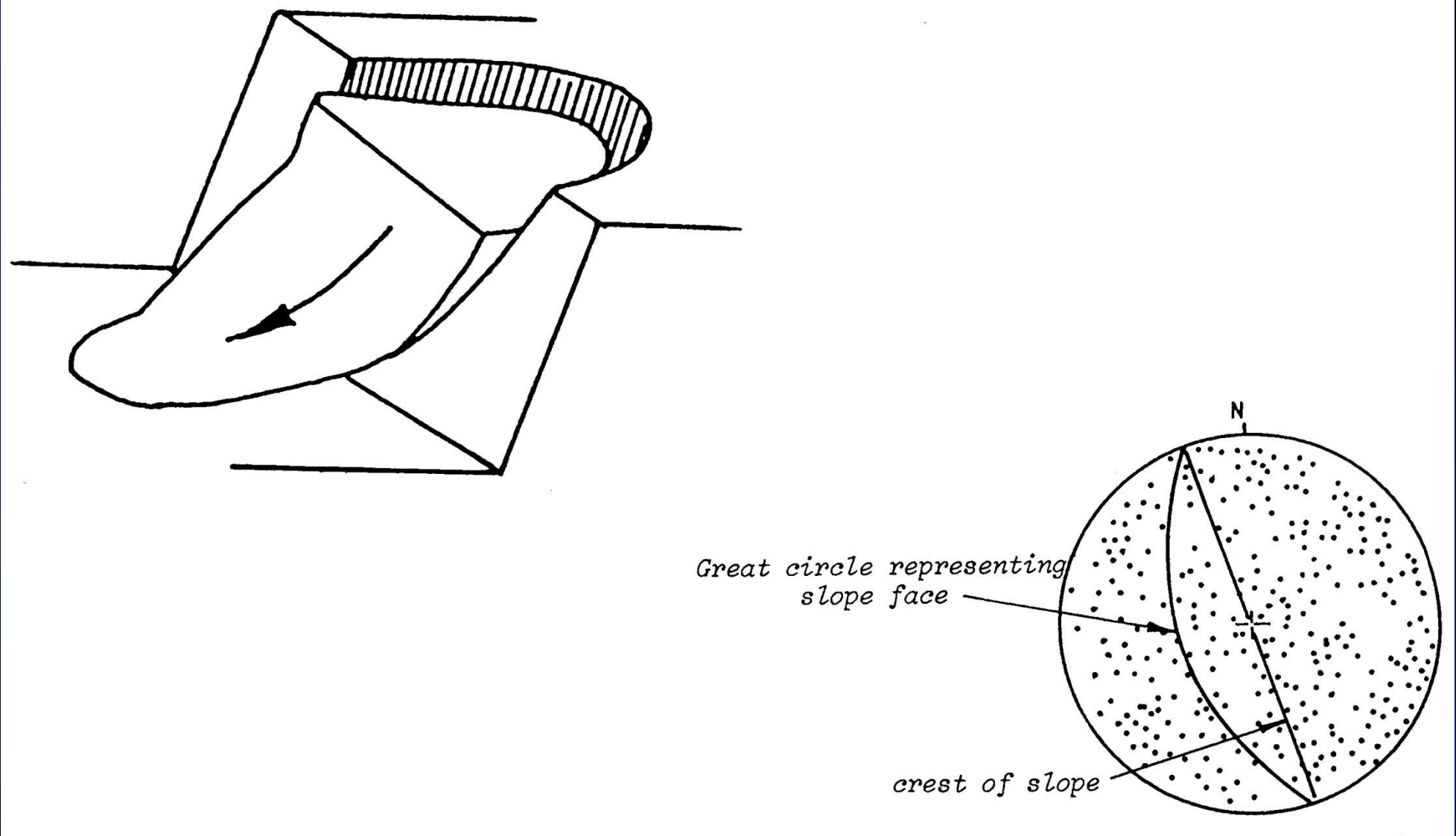


Stereoplot of Wedge Failure



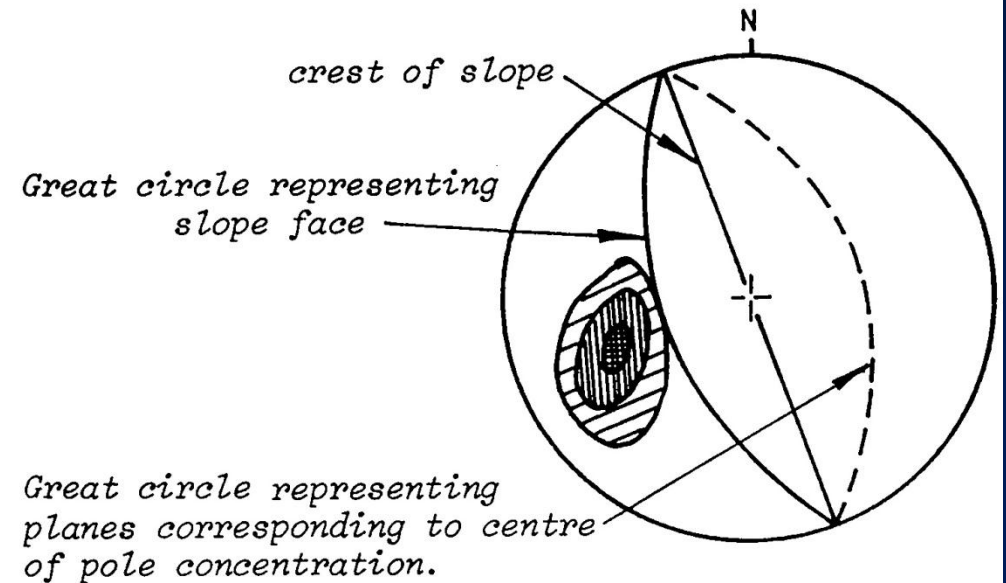
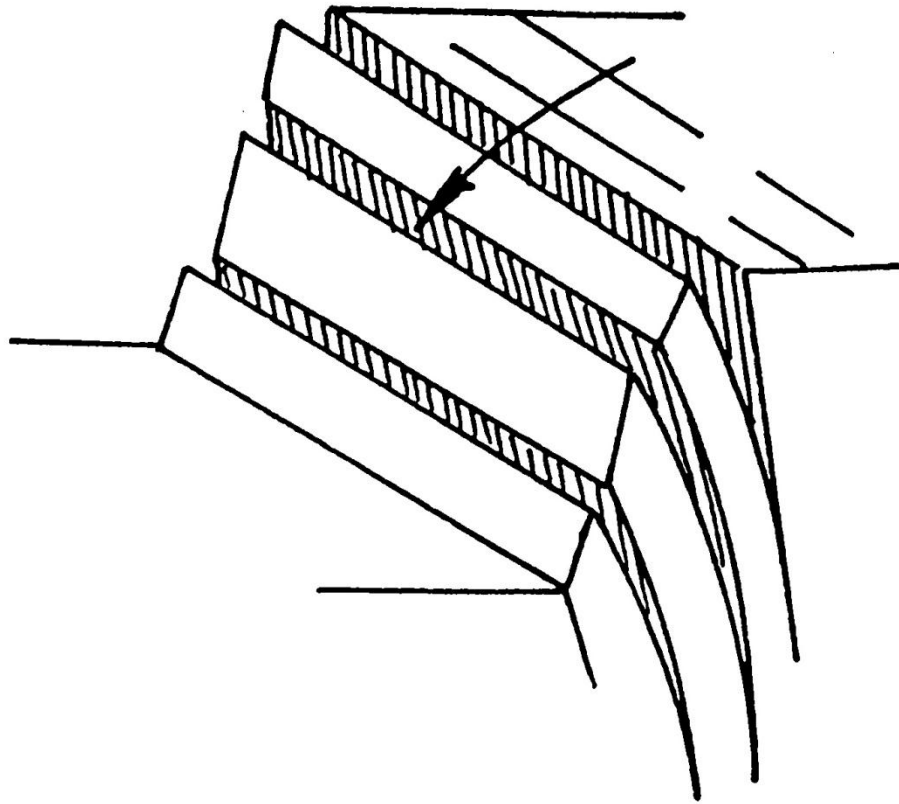


Stereoplot of Circular Failure





Stereoplot of Toppling Failure





LESSON 2 – GEOLOGICAL DATA COLLECTION and STEREOGRAPHIC PLOTTING

Learning Outcomes -

- ***List important geological parameters of discontinuities;***
- ***Plot and analyze structural orientation (stereonet) data.***